**U-COAT 527**

**U-COAT 527** is a high solids, two-component, liquid applied, aliphatic polyaspartic polyurea which exhibits excellent retention, gloss and UV stability. **U-COAT 527** is quick curing and specifically formulated to be installed in thin film applications (8-12 mils in a single pass).

- Polyaspartic topcoat over aromatic polyurea, polyurethane and epoxy applications
- May apply over concrete, plywood, steel and plastic
- Quick cure
- Very durable
- High tensile strength
- Abrasion resistant
- UV resistant for superior gloss retention
- Excellent weatherability
- Anti-fungal and biocide
- Available in Clear, Dolphin Gray and Tan

<table>
<thead>
<tr>
<th><strong>Polyaspartic Coating</strong></th>
<th>May be applied by phenolic resin core roller or spray</th>
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</thead>
<tbody>
<tr>
<td><strong>Packaging</strong></td>
<td>2 Gallon Kit (Part A: Part B)</td>
</tr>
<tr>
<td><strong>Coverage per gallon</strong></td>
<td>Theoretical coverage for 15 mil thickness is one gallon per 100 square feet</td>
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<tr>
<td><strong>Application Temperature</strong></td>
<td>35°F to 135°F</td>
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<tr>
<td><strong>Mixing</strong></td>
<td>Mix Part A and Part B thoroughly for 5 minutes obtaining a uniform color making sure to scrape the sides of pail. Mix frequently during use.</td>
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<tr>
<td><strong>Pot Life</strong></td>
<td>20-30 min at 75°F, 50% RH</td>
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<tr>
<td><strong>Light Traffic</strong></td>
<td>6 hours at 75°F, 50% RH</td>
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<tr>
<td><strong>Heavy Traffic</strong></td>
<td>24-48 hours at 75°F, 50% RH</td>
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<tr>
<td><strong>Recoat Time</strong></td>
<td>3 to 4 hours at 75°F, 50% RH</td>
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Phone: 800-442-5535  
Fax: 978-453-2416  
www.umaco.com
U-COAT 527 is a high solids, aliphatic polyaspartic polyurea topcoat which exhibits excellent retention, gloss and UV stability characteristics. It can be applied at a thickness of 8-12 mils (200-300 microns) in a single pass on horizontal surfaces or multiple passes on vertical surfaces. U-Cotate 527 is quick curing and specifically formulated to be installed in thin film applications.

**FEATURES**
- Quick cure
- High tensile strength
- Abrasion resistant
- Color stable
- Very durable
- Excellent weatherability
- Topcoat over aromatic polyurea, polyurethane and epoxy applications
- UV resistant for superior gloss retention
- Available in Clear, Dolphin Gray and Tan

**TYPICAL USES**
- Concrete
- Plywood
- Cold storage areas
- Industrial warehouses
- Chemical plants
- Off shore oil platforms
- Steel
- Plastic
- Food processing areas
- Pulp and paper mills
- Fertilizer plants.
- Pipeline barges

**PACKAGING**
2 Gallon Kit: (7.5 liters): 1 gallon (3.78 liters) can Side-A and 1 gallon (3.78 liters) can Side-B.

**SURFACE PREPARATION**
Concrete or plywood substrates must be free of all contamination that may impair proper bonding. Substrates must be sloped a minimum of 4" per foot for drainage, and must be primed with the applicable primer prior to application of the membrane and surface protection materials.

**Concrete**
The surface of concrete substrates must be clean and free of standing water. All holes, joints and cracks must be pointed flush with Portland Cement mortar and all high spots cut or ground off to provide a smooth, even surface. Before the material is applied, the substrate must be clean and free of dust or foreign material. Paint, grease and oil must be removed either by grinding or sandblasting and concrete surfaces must be shot-blasted or water-blasted. Control joints should be cut per standard concrete construction practices and caulked. Concrete must exhibit 3000-psi minimum. Concrete surfaces to be coated must be trowel finished in compliance with the American Concrete Institute (except that hand troweling is not required), followed by a fine hair brooming, left free of loose particles, and shall be without ridges, projections, voids and concrete droppings that would be mechanically detrimental to coating application or function.

**New and Old Concrete**
New concrete must be cured for 28 days prior to product application. Surface must be clean, dry, sound and offer sufficient profile for product adhesion. Remove all dust, dirt, oil, form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by shot-blasting and/or suitable chemical means, in accordance with local chemical regulations. Rinse thoroughly, to achieve a pH between 8.0 and 11.0. Allow to dry completely. If old concrete has a surface that has deteriorated to an unacceptably rough surface, U-Coat 260 or a mixture of U-Coat Primer and sand should be used as a repair agent for cracks, spalls, bug holes and voids. Upon full cure of the repair agent, prime the entire surface intended for coating with U-Coat Primer.

**Minimum surface preparation for Concrete and Masonry:**
SSPC-SP13/NACE 6 or ICRI No. 310.2 CSP 3-5. Primer required.

**Surface Preparation Reference**
- ASTM D4258 Standard practice for cleaning concrete
- ASTM D4259 Standard practice for abrading concrete
- ASTM D4260 Standard practice for etching concrete
- ASTM E1869 Standard test method for measuring moisture vapor emission rate of concrete
- ICRI 03732 Concrete surface preparation

*Neat cement sacking is not an acceptable surface preparation for coatings.*

**Plywood**
Plywood should be new or cleaned and sanded. Plywood must be exterior grade plywood, having either tongue-and-groove edges and ends perpendicular to supports. The plywood will be 19/32” or 21/32” thick. Plywood should be installed with a maximum of 1/16” space between the plywood sheets and laid over joists on 16” centers. Plywood sheets must be screwed down securely or nailed with coated annular ring or screw shank nails. If the underside of the joists is covered, the floor/ceiling cavity must be vented to aid in drying and to minimize moisture buildup in the deck structure. Damaged panels will be repaired/replaced before coating. Old plywood must be cleaned and sanded prior to coating application. The only acceptable grade of plywood is APA rated, exterior grade with exterior glue or better. The appearance and physical characteristics of the plywood and grade should be considered.

**Note:** The above plywood grade is called out in compliance with the American Plywood Association’s Standard. Plywood grading which does not reference APA markings may not be a suitable grade. No liability is assumed by Umaco for defects in the substrate.

**Metal**
Wire brush or sand steel surfaces until the metal is bright. Solvent wipe after cleaning.

**Minimum surface preparation for Metal and Steel:**
SSPC-SP6/NACE 3, 2 mils (50 microns) profile
MIXING
U-Coat 527 may not be diluted under any circumstance. Proportions are premeasured. U-Coat 527 Side-A and Side-B should be mixed individually before combining. Add Side-B to Side-A while mixing, using a mechanical mixer at medium speed. Mix until a homogeneous mixture and color is attained (at least 5 minutes) and mix frequently during application to maintain uniform color. Do not thin. Do not mix in an up and down motion. Use care to scrape the sides of the container to ensure that no unmixed material remains. Use caution not to whip air into the material as this may result in pinhole blisters and/or shortened pot life. Do not mix any material that cannot be used within 20-30 minutes.

APPLICATION
U-Coat 527 can be applied by phenolic resin core roller, plural component high pressure spray, or through a Pressure Pot. U-Coat 527 should be applied at a minimum film thickness of 5 mils (127 microns). It should be noted that the heavier the application, the longer the curing process takes. For best results, use an airless sprayer. A phenolic resin core roller may be used, but extra care should be taken not to cause air bubbles.

CURING
At 75°F (24°C) and 50% relative humidity, allow each coat to cure 3-4 hours. Cure time will vary depending on temperature and humidity. Allow 6 hours before permitting light pedestrian traffic and at least 24-48 hours before permitting heavy pedestrian traffic on to the finished surface. Uncured U-Coat 527 is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application. If more than 12 hours passes between coats, re-prime the surface with U-Coat Primer U before proceeding. If more than 12 hours have passed after applying clear coat of U-Coat 527, then re-prime surface with U-Coat Primer U and apply U-Coat 527 pigmented coat. If clear coat is required, then clear coat should be applied only after pigmented coat. If clear coat is applied after primer, the primer will become yellowish with exposure to light and surface will look not aesthetically pleasing. Low temperature and/or low humidity extend the cure time.

EQUIPMENT CLEANUP
Equipment should be cleaned with an environmentally safe solvent as permitted under local regulations immediately after use.

STORAGE
U-Coat 527 has a shelf life of one (1) year from date of manufacture in original factory sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

LIMITATIONS
- Surfaces must be dry, clean and free of foreign matter
- Clear coating may turn opaque and cloudy due to moisture penetration especially in exterior applications
- Surface may be slippery when wet
- Containers that have been opened must be used as soon as possible
- Do not dilute under any circumstance
- The following conditions must not be met:
  - Surface may be slippery when wet
  - Containers that have been opened must be used as soon as possible
  - Do not dilute under any circumstance
  - The following conditions must not be met:

WARNING
This product contains Isocyanates.

For technical assistance call 978-453-8881.

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TECHNICAL DATA
Based on draw down film

U-COAT 527, CLEAR
Mix Ratio by Volume
1A:1B
Coverage Rate
1 gallon/100 ft² (0.41 l/sqm)
Dry Film Thickness per Coat
15 ± 2 mils (381 ± 50 microns)
Pot Life at 75°F (24°C), 50% RH
25-30 minutes
Hardness, ASTM D-2240
65 ± 5 Shore A
Tear Resistance, ASTM D-624
450 ± 50 pli (78.8 ± 8.8 kN/m)
Tensile Strength, ASTM D-412
3000 ± 200 psi (20.7 ± 1.4 MPa)
Ultimate Elongation, ASTM D-412
70 ± 10%
Specific Gravity
Side A = 1.14 ± 0.1, Side B = 1.06 ± 0.1
Total Solids by Weight, ASTM D-2697
91 ± 2%
Total Solids by Volume, ASTM D-2699
90 ± 2%
Viscosity at 75°F (24°C)
Side A = 300 ± 100cps
Side B = 1000 ± 300cps
VOC’s, ASTM D-2369-81
0.0 lb/gal (0.0 gm/liters)

U-COAT 527, PIGMENTED
Mix Ratio by Volume
1A:1B
Coverage Rate
1 gallon/100 ft² (0.41 l/sqm)
Dry Film Thickness per Coat
15 ± 2 mils (381 ± 50 microns)
Pot Life at 75°F (24°C), 50% RH
25-30 minutes
Hardness, ASTM D-2240
65 ± 5 Shore A
Tear Resistance, ASTM D-624
400 ± 30 pli (70.1 ± 8.8 kN/m)
Tensile Strength, ASTM D-412
3000 ± 200 psi (20.7 ± 1.4 MPa)
Ultimate Elongation, ASTM D-412
50 ± 10%
Specific Gravity
Side A = 1.14 ± 0.1, Side B = 1.28 ± 0.1
Total Solids by Weight, ASTM D-2699
91 ± 2%
Total Solids by Volume, ASTM D-2697
91 ± 2%
Viscosity at 75°F (24°C)
Side A = 300 ± 100cps,
Side B = 1000 ± 300cps
VOC’s, ASTM D-2369-81
0.0 lb/gal (0.0 gm/liters)

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LIMITED WARRANTY
The manufacturer guarantees its products to be free of defects and the extent of its liability is limited to the purchase price of the materials only, if proved to be defective. Improper mixing, incorrect application or other factors beyond the control of the manufacturer or its dealers may produce unsatisfactory results and cannot be held to be the manufacturers or its dealers responsibility. There are no other guarantees either expressed or implied.